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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,461

06/28/2006

Takashi Kubota

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EXAMINER

NGUYEN, KHANH TUAN

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,461	Applicant(s) KUBOTA, TAKASHI	
	Examiner KHANH T. NGUYEN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 09/11/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/11/2008 has been entered.

2. The amendment filed on 08/14/2008 is entered and acknowledged by the Examiner. Claims 1-3 are currently pending in the instant application.

Withdrawn Rejection(s)

3. The rejection of claim 2 under 35 U.S.C. 112, second paragraph, is withdrawn in view of Applicant's amendment and remark. The rejection of claims 1 and 2 under 35 U.S.C. 103(a) as being unpatentable over Teichmann (U.S Pat. 4,711,814) in view of either Kanzler et al. (U.S. Pat. 6,776,828 B2) or Krulik et al. (U.S. Pat. 5,318,621) is withdrawn in view of Applicant's amendment and remark. The rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Teichmann (U.S Pat. 4,711,814) in view of either Kanzler et al. (U.S. Pat. 6,776,828 B2) or Krulik et al. (U.S. Pat. 5,318,621) and

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further in view of Khanna (U.S. Pat. 6,838,022 B2) is withdrawn in view of Applicant's amendment and remark.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. 4,711,814 (hereinafter Teichmann) in view of U.S. Pat. 6,811,828 B2 (hereinafter Takahashi) and further in view of U.S. Pat. 5,320,667 (hereinafter Gesemann).

With respect to claims 1 and 2, Teichmann teaches (Please see Fig. 1) an electroconductive particle that has a gold coating 11 formed over a solid nickel particle by electroless plating method or alternatively immersion plating technique containing potassium gold cyanide (Col. 2, lines 25-35 and Col. 3, lines 12-47). Claim 1 is a product-by-process claim and is not limited to the manipulations of the recited steps, only the structure limited by the steps. Therefore, the patentability of the product does not depend on its method of production and the claimed steps (i.e. formed by electroless gold plating or produced by a method wherein reducing agent cause oxidation reaction on the surface of a nickel undercoat but not on the surface of gold deposition) were not given patentable weight.

The difference between the instant application and Teichmann disclosure is that Teichmann is silent with regards to an ammonium sulfite reducing agent.

In an analogous art of electroless gold plating, Takahashi an electroless gold plating method (Abstract) comprises of potassium gold cyanide (Col. 3, lines 52-54) and a non-cyan complexing agent such as sulfites, thiosulfates and thiomalates in order to provide stability to the plating solution (Col. 4, lines 1-15). Takahashi failed to explicitly suggest a sulfite selected from an ammonium sulfite.

However, Gesemann discloses an electroless gold plating method wherein gold is deposited onto a nickel or nickel alloy films (Abstract). Gesemann discloses the said gold plating method comprises of potassium gold cyanide, KAu(CN)_2 , (Col. 2, line 14) and an ammonium sulfite (Col. 1, lines 50-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electroconductive particle of Teichmann which has a gold coating formed by electroless gold plating on the surface of a nickel undercoat by incorporating an ammonium sulfite into the gold plating solution as suggested by Takahashi in view of Gesemann in order to provide stability to the plating solution. Further, Applicant have not provide the critically of the amount of nickel dissolved in a dissolution test of the electroconductive fine particle with nitric acid being 30 to 100 $\mu\text{g/g}$. Nonetheless, all the claimed elements were known in the prior art and the one skilled in the art could have combined the elements as claimed by the know methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

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The Examiner further notes that the USPTO is not equipped to perform laboratory testings and experimental benchworks to measure the properties of the resulting composition. The burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. 4,711,814 (hereinafter Teichmann) in view of U.S. Pat. 6,811,828 B2 (hereinafter Takahashi) further in view of U.S. Pat. 5,320,667 (hereinafter Gesemann) as applied to the claims above, and further in view of U.S. Pat. 6,838,022 B2 (hereinafter Khanna).

Teichmann, Takahashi and Gesemann are relied upon set forth above. With respect to claim 3, Teichmann teaches the electroconductive gold plated nickel particle may be embedded in an organic matrix to provide an electroconductive body (Col. 1, lines 48-51). The said organic matrix contains one or more resins and solvent (Col. 40-60).

The difference between the instant application and the prior arts are that the references are silent about the electroconductive body being an anisotropic electroconductive material.

However, Khanna teaches an anisotropic conductive material may comprising of nickel particle (i.e. nickel undercoating) coated with gold suspended in a resin binder (Col. 1, lines 54-65 and Col 2, lines 7-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to formulate an anisotropic electroconductive material by suspending the nickel coated particle of Teichmann in view of Takahashi and further in view of Gesemann into an organic resin binder to obtain an anisotropic conductive material as suggested by Khanna. The prior art teaches all the claimed elements and the one skilled in the art could have combined the elements as claimed to formulate the claimed anisotropic electroconductive material and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Response to Arguments

7. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH T. NGUYEN whose telephone number is (571)272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KTN/
09/15/2008

/DOUGLAS MC GINTY/
Primary Examiner, Art Unit 1796